TIMSS-R 1999 Secondary Analysis State of Idaho

STUDENT SURVEY					
How often does this happ	en in yo	our mat	hematics	lessons	?
**	Almost always	Pretty often	Once in a while	Never	SIG. TEST
a) The teacher shows us how to do					
mathematics problems.					
Math Achievement Score	500.8	482.6	464.2	411.9	✓
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	✓	✓	
Pretty often			✓	✓	
Once in a while				✓	
Never					
Algebra	508.6	493.3	463.9	446.9	-
Aigeora	Almost		Once in a	Never	•
	always	Pretty often	while	Never	
Almost always	aiways	onten ✓	winie ✓	√	
Pretty often			· ✓	✓	
Once in a while			<u> </u>	NS	
Never				110	
rvevei					
Geometry	475.0	471.6	447.6	446.4	✓
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		NS	✓	NS	
Pretty often			NS	NS	
Once in a while				NS	
Never					
Fractions and number sense	513.9	507.2	490.0	447.1	-
Fractions and number sense					V
	Almost	Pretty	Once in a while	never	
Almost always	always	often NS	wmie ✓	√	
Pretty often		11/2	NS	∨	
Once in a while			INS	∨	
				v	
Never					

Measurement	491.6	477.4	459.5	429.6	√	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						
Data representation, analysis,	509.7	487.0	475.4	440.4	√	
& probability						
or procuently	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						
b) We copy notes from the board.						
Math Achievement Score	489.9	491.3	508.4	487.7	NS	
Tradit i temo i emente se este	Almost	Pretty	Once in a	Never	110	
	always	often	while	_ , , , , ,		
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Algebra	499.0	500.5	516.1	494.3	NS	
8	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Geometry	476.6	470.1	478.3	454.5	NS	
Ť	Almost	Pretty	Once in a	Never		
	always	often	while			<u> </u>
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						

Fractions and number sense	506.1	508.2	520.6	508.0	NS	
	Almost	Pretty	Once in a	Never	110	
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			√	NS		
Once in a while				NS		
Never				110		
110,01						
Measurement	480.5	481.9	500.2	485.5	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
Data representation, analysis, & probability	498.3	501.6	514.5	499.3	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
c) We have a quiz or test.						
Math Achievement Score	484.7	509.2	485.4	444.1	NS	
Tracii Fichic veniche Score	Almost	Pretty	Once in a	Never	110	
	always	often	while	1,0,01		
Almost always		✓	NS	NS		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Algebra	495.0	516.4	490.1	469.6	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	NS	NS		
Pretty often			✓	✓		
Once in a while				NS		
Never						

Geometry	466.4	480.9	468.4	439.4	NS
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	NS	NS	
Pretty often			NS	✓	
Once in a while				NS	
Never					
Fractions and number sense	503.4	521.8	500.6	479.2	NS
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	NS	NS	
Pretty often			✓	✓	
Once in a while				NS	
Never					
Measurement	482.5	497.5	471.6	453.5	NS
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	NS ✓	NS ✓	
Pretty often			✓	✓	
Once in a while				NS	
Never					
Data representation, analysis, & probability	495.5	513.7	499.8	450.8	
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	NS	NS	
Pretty often			NS	✓	
Once in a while				✓	
Never					
d) We work on mathematics					
projects.	1.50 =	1.5.5	70.5	707 °	
Math Achievement Score	468.7	477.9	506.7	503.0	✓
	Almost	Pretty	Once in a	Never	
A 1 4 - 1	always	often	while	NIC	
Almost always		NS	√	NS ✓	
Pretty often			Y		
Once in a while		1		NS	
Never					

Algebra	479.9	490.2	512.4	510.5	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Geometry	460.1	468.4	480.2	472.6	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Fractions and number sense	492.5	504.1	516.9	516.3	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Measurement	468.7	473.1	493.5	495.7	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Data representation, analysis,	477.7	495.3	511.5	512.3	✓	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	√	✓		
Pretty often			✓	NS		
Once in a while				NS		
Never						

e) We work from worksheets or						
extbooks on our own.						
Math Achievement Score	501.6	484.2	479.3	459.7	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						
Algebra	508.6	495.0	489.7	478.8	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	√	✓ VIG		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Geometry	475.5	471.0	458.8	463.5	√	
Geometry	Almost	Pretty	Once in a	Never		
	always	often	while	TYCYCI		
Almost always	arvays	NS	√ · · · · · · · · · · · · · · · · · · ·	NS		
Pretty often		11,2	NS	NS		
Once in a while			110	NS		
Never				110		
110101						
Fractions and number sense	514.8	504.8	501.6	486.0	√	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always	-	✓	NS	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Measurement	493.0	478.1	472.0	450.9	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						

Data representation, analysis, & probability	509.0	499.5	485.7	461.7	√
	Almost always	Pretty often	Once in a while	Never	
Almost always	•	NS	✓	✓	
Pretty often			NS	✓	
Once in a while				NS	
Never					
f) We use calculators.					
Math Achievement Score	496.4	500.6	496.2	470.8	NS
Wath Achievement Score	Almost	Pretty	Once in a	Never	140
	always	often	while	Ticver	
Almost always		NS	NS	✓	
Pretty often			NS	✓	
Once in a while				✓	
Never					
	707.0	5045	50 6 4	402.1	710
Algebra	505.8	504.7	506.1	483.1	NS
	Almost always	Pretty often	Once in a while	Never	
Almost always		NS	NS	NS	
Pretty often			NS	NS	
Once in a while				✓	
Never					
Geometry	473.4	481.8	468.1	455.4	NS
•	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		NS	NS	✓	
Pretty often			✓	✓	
Once in a while				✓	
Never					
T. d.	511.	710.1	510.2	407.4	NG
Fractions and number sense	511.6	518.1	510.2	487.4	NS
	Almost always	Pretty often	Once in a while	Never	
Almost always		NS	NS	✓	
Pretty often			NS	✓	
Once in a while				✓	
Never					

Measurement	492.4	488.3	485.5	466.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always	•	NS	NS	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Data representation, analysis,	503.3	509.2	504.9	486.6	NS	
& probability		007.2		100.0		
et producting	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always	•	NS	NS	NS		
Pretty often			NS	✓		
Once in a while				✓		
Never						
2.3.32						
g) We use computers.						
Math Achievement Score	412.3	448.4	507.4	498.0	√	
Watti / temevement score	Almost	Pretty	Once in a	Never		
	always	often	while	110,01		
Almost always		NS	✓	✓		
Pretty often			√	✓		
Once in a while				NS		
Never				110		
110101						
Algebra	435.7	466.0	512.0	505.9	√	
riigeoiu	Almost	Pretty	Once in a	Never		
	always	often	while	110,01		
Almost always		✓	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never		1				
Geometry	448.2	449.1	488.2	471.5	NS	
Scomery	Almost	Pretty	Once in a	Never	1,0	
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	✓		
Once in a while			1	√		
Never		1				
2.3.02						

Fractions and number sense	453.5	487.3	521.1	511.9	✓	
Tractions and number sense	Almost	Pretty	Once in a	Never		
	always	often	while	TTCTCI		
Almost always	urways	✓	√	√		
Pretty often			✓	√		
Once in a while				NS		
Never				110		
Nevel						
Measurement	450.8	451.3	491.6	489.6	√	
Trousdiente.	Almost	Pretty	Once in a	Never		
	always	often	while	1,0,01		
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Data representation, analysis,	440.7	459.8	515.3	505.7	√	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
h) We use things from everyday						
life in solving mathematics						
problems.						
Math Achievement Score	480.5	498.2	508.3	481.0	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			✓	✓		
Once in a while				✓		
Never						
Algebra	492.7	506.2	514.0	489.2	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	✓		
Once in a while				✓		
Never						

Geometry	465.0	476.9	480.5	457.2	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Fractions and number sense	497.9	514.6	521.4	499.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Measurement	479.4	488.66	493.3	482.5	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Data representation, analysis, & probability	493.8	505.0	514.3	490.1	NS	
et producting	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						
i) We work together in pairs or						
small groups.						
Math Achievement Score	485.5	492.0	505.1	483.3	NS	
	Almost always	Pretty often	Once in a while	Never		
Almost always		NS	NS	NS		
		~				
			110	√		
110101						
Pretty often Once in a while Never			NS	NS		

Algebra	497.9	505.4	508.3	495.0	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						
Geometry	470.9	468.4	479.5	464.0	NS	
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						
Fractions and number sense	504.4	510.3	518.9	498.4	NS	
	Almost	Pretty	Once in a	Never	- 1.2	
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						
-1010						
Measurement	483.1	485.8	493.2	477.5	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						
Data representation, analysis,	499.8	501.0	511.0	493.5	NS	
& probability	.,,,,	201.0		1,70.0	1.2	
or producine,	Almost	Pretty	Once in a	Never		
	always	often	while	1,0,01		
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while			1 .~	√		
Never						
110 101						

he teacher gives us homework						
lass.						
Math Achievement Score	504.0	482.8	487.5	443.5	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Algebra	511.1	492.3	494.5	468.5	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Geometry	480.0	462.8	460.2	443.9	✓	
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Fractions and number sense	517.9	500.0	504.4	475.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	NS	✓		
Pretty often			NS	NS		
Once in a while				✓		
Never						
Measurement	494.3	480.5	477.2	439.4	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						

Data representation, analysis, & probability	510.4	494.9	495.7	472.7	√	
	Almost always	Pretty often	Once in a while	Never		
Almost always	uz waj s	√	NS	✓		
Pretty often			110			
Once in a while						
Never						
TYCVCI						
1-) W 1						
k) We can begin our homework in						
class. Math Achievement Score	501.0	400.7	471.5	474 1	✓	
Math Achievement Score	501.2	488.7	471.5	474.1	-	
	Almost	Pretty often	Once in a while	Never		
Almost always	always	onen ✓	wille ✓	√		
Almost always		+	✓			
Pretty often			-	NS		
Once in a while				NS		
Never						
Algebra	508.1	499.8	483.7	487.7	√	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
Geometry	476.6	468.3	455.9	465.7	√	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Fractions and number sense	515.3	508.8	490.3	491.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	NS		
Once in a while				NS		
Never						

Measurement	492.3	477.0	478.2	457.4	√	
TVICUSUI CITICITE	Almost	Pretty	Once in a	Never		
	always	often	while	110701		
Almost always		✓	✓	✓		
Pretty often			NS	NS		
Once in a while			1 12	NS		
Never				110		
110101						
Data representation, analysis,	509.9	497.2	479.7	475.3	√	
& probability	307.7	771.2	777.7	773.3		
& probability	Almost	Pretty	Once in a	Never	+	
	always	often	while	INCVCI		
Almost always	urvajs	✓	✓ · · · · · · · · · · · · · · · · · · ·	√		
Pretty often			√	NS		
Once in a while				NS		
Never			+	110	+	
Nevei						
1) The teacher checks homework.						
,	102.4	105.0	511.3	401.2	NC	
Math Achievement Score	492.4 Almost	485.2	Once in a	491.3 Never	NS	
		Pretty often	while	Never		
Almost always	always	NS	wille ✓	NS		
Pretty often		110	√	NS		
Once in a while			+	\(\sigma\)		
Never				V		
Never						
Algebra	500.1	496.6	517.6	502.3	NS	
Aigeora	Almost	Pretty	Once in a	Never	IND	
	always	often	while	Nevei		
Almost always	aiways	NS	winie ✓	NS	+	
Pretty often		110	√	NS	+	
Once in a while			•	\(\sigma\)		
				V		
Never						
Coometwy	176 1	162.7	477.2	162.0	NC	
Geometry	476.1	463.7	477.2	463.8	NS	
	Almost	Pretty often	Once in a while	Never		
Almost always	always	onen ✓		NS		
Almost always		+	NS ✓			
Pretty often			,	NS NC		
Once in a while				NS		
Never						

Fractions and number sense	507.0	504.2	524.7	510.4	NS	
Tractions and number sense	Almost	Pretty	Once in a	Never	145	
	always	often	while	Nevei		
Almost always	aiways	NS	winc ✓	NS		
Pretty often		110	√	NS		
Once in a while				1\15		
Never				•	+	
Never						
Magazinan	195.2	490.1	407.2	105.0	NIC	
Measurement	485.2	480.1	497.3	485.8	NS	+
	Almost	Pretty often	Once in a while	Never		
A leaget always	always	NS	wille ✓	NS	+	
Almost always		NS	V ✓			
Pretty often			-	NS		
Once in a while				NS		
Never						
Data representation, analysis,	501.3	497.3	514.8	503.3	NS	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
m) We check each other's						
homework.						
Math Achievement Score	503.7	490.6	483.2	488.2	NS	
Tradit i temo vement beete	Almost	Pretty	Once in a	Never	110	
	always	often	while	110101		
Almost always	1	NS	✓	NS		
Pretty often		110	NS	NS		
Once in a while			110	NS		
Never				140		+
INEVEL						
Algabus	500.4	501.0	407.7	109.4	NIC	
Algebra	508.4	501.8	497.7 Once in a	498.4 Never	NS	+
	Almost	Pretty often	while	never		
Almost always	always	NS	NS	NS		+
Almost always		IND				+
Pretty often		1	NS	NS		
Once in a while		1		NS		
Never						

473.8	471.4	469.4	475.4	NS	
Almost	Pretty	Once in a	Never		
always	often	while			
	NS	NS	NS		
		NS	NS		
			NS		
517.2	510.5	499.0	504.9	NS	
Almost	Pretty	Once in a	Never		
always	often	while			
	NS				
		NS	NS		
			NS		
493.4	483.5	476.7	483.3	NS	
Almost	Pretty	Once in a	Never		
always					
	NS				
		NS			
			NS		
511.4	498.1	496.3	496.0	NS	
Almost	Pretty	Once in a	Never		
		while	_ , , , , , _		
	✓	NS	NS		
498.2	500.4	495.3	474.5	NS	
Almost	Pretty	Once in a	Never		
always	often	while			
	NS	NS	✓		
		NS	✓		
			✓		
	Almost always 517.2 Almost always 493.4 Almost always 511.4 Almost always	Almost always often NS 517.2 510.5 Almost Pretty often NS 493.4 483.5 Almost always often NS 511.4 498.1 Almost always often V 498.2 500.4 Almost always often	Almost always often while NS NS NS NS S17.2 510.5 499.0 Almost always often while NS NS NS S17.2 510.5 499.0 Almost always often while NS NS Almost always often while NS NS S17.2 510.5 499.0 NS NS NS NS NS Almost always often while NS S17.2 510.5 499.0 NS NS NS NS NS NS NS NS NS Almost always often while NS NS NS NS NS NS NS NS NS N	Almost always Pretty often Once in a while Never while NS NS NS NS NS NS NS NS S17.2 510.5 499.0 504.9 Almost always Pretty often Once in a while NS NS NS NS	Almost always Pretty often Once in a while Never while NS NS NS NS NS NS S17.2 510.5 499.0 504.9 NS Almost always Pretty often Once in a while Never while NS NS NS NS NS Almost always Pretty often Once in a while NS NS NS NS NS NS NS S11.4 498.1 496.3 496.0 NS Almost always Pretty often Once in a while NS NS NS NS NS NS NS Almost always Pretty often Once in a while NS NS Almost always Pretty often Once in a while NS NS NS NS NS NS

Algebra	506.4	506.4	504.5	487.2	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						
Geometry	478.7	472.1	470.5	455.0	✓	
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Fractions and number sense	511.3	515.6	512.4	498.2	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Measurement	489.5	489.0	490.3	469.5	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Data representation, analysis,	508.1	506.0	502.7	486.7	NS	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always	-	NS	NS	✓		
Pretty often			NS	✓		
Once in a while			NS	✓		
Never						

The teacher uses the board.						
Math Achievement Score	503.3	475.3	485.9	479.1	√	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	NS	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Algebra	509.6	489.6	494.0	495.2	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Geometry	476.4	462.2	470.0	471.1	NS	
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Fractions and number sense	517.2	500.4	501.7	488.8	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	NS	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						
Measurement	492.8	473.0	485.0	466.9	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	NS	√		
Pretty often			NS	NS		
Once in a while		1		✓		
Never			1			

Data representation, analysis, & probability	511.0	487.0	496.1	484.7	✓	
	Almost always	Pretty often	Once in a while	Never		
Almost always		✓	NS	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
p) The teacher uses an overhead projector.						
Math Achievement Score	488.9	478.2	511.5	506.3	√	
Main Achievement Score	Almost	Pretty	Once in a	Never	+	+
	always	often	while	Nevel		
Almost always	urways	NS	✓ White	√		
Pretty often		110	✓	√		
Once in a while				NS		
Never				110		
110101						
Algebra	497.1	490.5	519.0	513.3	√	
1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS ✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Geometry	473.8	465.5	476.8	472.3	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Fractions and number sense	502.7	503.6	523.4	522.4	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						

Measurement	481.6	473.7	497.8	500.2	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Data representation, analysis,	497.5	497.0	515.5	511.0	NS	
& probability					- 1.2	
or producting	Almost	Pretty	Once in a	Never		
	always	often	while	- 12 / 22		
Almost always		NS	NS	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
1,0,02						
q) Students use the board.						
Math Achievement Score	463.5	502.6	505.2	484.8	NS	
With Hemevement Beore	Almost	Pretty	Once in a	Never	110	
	always	often	while	110701		
Almost always		✓	✓	NS		
Pretty often			NS	✓		
Once in a while				√		
Never						
1,0,02						
Algebra	477.4	514.2	509.9	495.4	NS	
Inguit	Almost	Pretty	Once in a	Never	11,2	
	always	often	while	1,0,01		
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Geometry	461.5	474.7	478.6	464.6	NS	
	Almost	Pretty	Once in a	Never	1.0	
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						

Fractions and number sense	487.7	519.8	518.3	500.6	NS	
Tractions and number sense	Almost	Pretty	Once in a	Never	110	
	always	often	while	- 12 / 22		
Almost always		✓	✓	NS		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Measurement	468.5	494.5	494.4	476.3	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Data representation, analysis,	471.0	505.6	514.6	496.8	NS	
& probability						
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	NS		
Once in a while				✓		
Never						
r) Students use the overhead						
projector.						
Math Achievement Score	440.3	454.7	505.6	500.9	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Algebra	462.4	475.1	511.9	507.3	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						

Geometry	450.9	463.2	482.6	472.0	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Fractions and number sense	469.5	485.8	520.2	514.0	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Measurement	462.0	453.8	490.8	492.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
Data representation, analysis,	449.2	465.3	514.7	509.0	✓	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				NS		
Never						
s) The teacher gets interrupted by						1
messages, visitors, etc.						
Math Achievement Score	463.3	475.4	509.7	484.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			1
Almost always		NS	✓	✓		
Pretty often			✓	NS		
Once in a while				✓		
Never						

Algebra	474.8	486.0	515.7	497.9	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Geometry	457.9	454.8	481.8	469.4	✓	
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
Fractions and number sense	488.9	495.1	521.6	504.3	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Measurement	468.0	478.4	494.9	480.8	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
Data representation, analysis,	468.0	495.7	516.4	488.1	✓	
& probability						
1 -	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always	-	✓	✓	NS		
Pretty often			✓	NS		
Once in a while				✓		
Never						

t) The teacher uses a computer to						
demonstrate ideas in mathematics.						
Math Achievement Score	427.1	432.3	482.1	505.2	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				✓		
Never						
Algebra	460.0	448.8	493.8	511.0	✓	
6	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			√	✓		
Once in a while				✓		
Never						
1,0,02						
Geometry	436.6	447.7	472.5	476.3	√	
Geometry	Almost	Pretty	Once in a	Never		
	always	often	while	1,0,01		
Almost always		NS	√	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never				1,2		
1,0,02						
Fractions and number sense	456.4	470.0	499.6	518.3	√	
Tractions and named sense	Almost	Pretty	Once in a	Never		
	always	often	while	1,0,01		
Almost always		NS	✓	✓		
Pretty often			√	✓		
Once in a while				√		
Never						
2,6,02						
Measurement	456.9	446.9	471.5	494.0	√	
-/240000241114111	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	✓		
Pretty often			✓	✓		
Once in a while				✓		
Never						

Data representation, analysis,	441.0	440.2	496.8	512.3	✓	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	✓		
Once in a while				✓		
Never						

	Almost always	Pretty often	Once in a while	Never	SIG. TEST
) Having the teacher explain the					
ules and definitions.					
Math Achievement Score	500.4	490.4	486.1	450.4	✓
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	✓	✓	
Pretty often			NS	✓	
Once in a while				✓	
Never					
Algebra	507.1	503.7	491.1	468.2	✓
-	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		NS	✓	✓	
Pretty often			✓	✓	
Once in a while				✓	
Never					
	155.4	450.0	152.2	17.5	710
Geometry	475.4	470.9	463.3	456.5	NS
	Almost	Pretty	Once in a	Never	
A los est alvuers	always	often	while	NIC	
Almost always		NS	NS	NS	
Pretty often			NS	NS	
Once in a while				NS	
Never					

Fractions and number sense	515.0	505.8	506.4	475.6	✓	
Tractions and number sense	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	NS	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
110,01						
Measurement	490.7	485.2	480.3	452.6	√	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						
Data representation, analysis,	509.1	497.9	495.1	465.7	✓	
& probability						
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
b) Discussing a word problem						
related to everyday life.						
Math Achievement Score	482.6	491.5	508.6	493.9	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Algebra	491.9	498.9	518.6	499.2	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				✓		
Never						

Geometry	468.3	475.0	475.2	471.1	NS	
Comeny	Almost	Pretty	Once in a	Never	110	
	always	often	while	110701		
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never				- 1,2		
7,0,02						
Fractions and number sense	500.0	509.1	522.6	507.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Measurement	476.4	488.0	494.8	486.2	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Data representation, analysis,	495.5	498.9	516.1	501.3	NS	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS ✓		
Once in a while				✓		
Never						
c) Working together in pairs or						
small groups on a problem or						
project.						
Math Achievement Score	474.4	487.6	503.6	498.0	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						

Algebra	487.7	502.3	507.9	506.4	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Geometry	461.0	468.2	477.4	474.2	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Fractions and number sense	495.6	505.5	517.3	512.1	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Measurement	477.7	480.3	492.9	488.4	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	NS	NS		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Data representation, analysis,	483.9	497.1	511.5	507.4	✓	
& probability						
•	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						

d) Having the teacher ask us what						
we know related to the new topic.						
Math Achievement Score	478.2	490.7	509.2	500.0	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			✓	NS		
Once in a while				✓		
Never						
Algebra	490.4	500.4	515.6	505.5	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	NS		
Pretty often			✓	NS		
Once in a while				NS		
Never						
Geometry	459.6	474.6	481.0	470.3	NS	
· · ·	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	NS		
Pretty often			NS	NS		
Once in a while				✓		
Never						
Fractions and number sense	495.6	508.7	522.4	512.8	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			✓	NS		
Once in a while				NS		
Never						
Measurement	475.4	481.7	496.8	495.6	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			✓	NS		
Once in a while				NS		
Never						

Data representation, analysis, & probability	481.7	501.6	519.8	507.5	✓
	Almost always	Pretty often	Once in a while	Never	
Almost always		✓	✓	✓	
Pretty often			√	NS	
Once in a while				√	
Never					
110701					
e) Looking at the textbook while					
the teacher talks about it.					
Math Achievement Score	496.1	504.6	497.0	465.9	NS
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	NS	✓	
Pretty often			NS	✓	
Once in a while				✓	
Never					
Algebra	505.3	512.4	506.3	469.6	✓
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		NS	NS	✓	
Pretty often			NS	✓	
Once in a while				✓	
Never					
Geometry	467.8	481.7	477.6	466.3	NS
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	NS	NS	
Pretty often			NS	✓	
Once in a while				NS	
Never					
Fractions and number sense	510.3	519.3	513.3	488.8	NS
	Almost	Pretty	Once in a	Never	
	always	often	while		
Almost always		✓	NS	✓	
Pretty often			NS	✓	
Once in a while				✓	
Never					

Measurement	488.3	493.0	488.4	466.6	NS	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always	•	NS	NS	✓		
Pretty often			NS	✓		
Once in a while				✓		
Never						
Data representation, analysis, & probability	504.6	512.8	504.1	478.5	✓	
a producting	Almost	Pretty	Once in a	Never		
	always	often	while	110701		
Almost always		NS	NS	✓		
Pretty often			NS	✓		
Once in a while				√		
Never						
110701						
f. Twing to solve an average						
f) Trying to solve an example						
related to the new topic.					_	
Made Astronomy Comm	502.4	402.0	494.2	457.0	√	
Math Achievement Score	502.4	493.9	484.2	457.0	V	
	Almost	Pretty often	Once in a while	Never		
Almost always	always	NS	winie ✓	√		
Pretty often		IND	NS	✓		
Once in a while			No			
				NS		
Never						
Alashus	510.3	501.9	492.8	471.4	√	
Algebra	Almost	Pretty	Once in a	Never	•	
	always	often	while	Never		
Almost always	aiways	NS	winc ✓	√		
Pretty often		110	NS	✓		
Once in a while			110	NS		
Never				110		
TNEVEL						
Geometry	477.4	472.4	464.0	449.1	√	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always	ĺ					
Pretty often						
Once in a while						
Never						

Fractions and number sense	515.9	510.4	501.7	484.3	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	✓		
Once in a while				NS		
Never						
Measurement	492.3	486.1	477.3	464.3	✓	
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		NS	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						
Data representation, analysis,	511.6	498.5	494.1	477.0	✓	
& probability						
	Almost	Pretty	Once in a	Never		
	always	often	while			
Almost always		✓	✓	✓		
Pretty often			NS	NS		
Once in a while				NS		
Never						